ESCI 506 Carbonates Depositional Systems - Spring 2017 (Tentative)

Dr. André W. Droxler
Office: Geology Building Room 205
Phone: 713-348 4885 *However, E-mail is a more convenient way to communicate with me outside the class hours.*
E-mail: andre@rice.edu

ESCI 506 Syllabus

Wednesday January 11:

Information and Logistics
General Introduction
Carbonates versus Siliciclastics

Wednesday January 18:

Carbonate Mineralogy
Carbonate Skeletal Grains
Carbonate Non-Skeletal Grains

Wednesday January 25:

Carbonate Classifications
Neritic Carbonate General Depositional Models

Wednesday February 01:

Carbonate Chemistry
Ocean Acidification

Carbonate Basin to Shelf Fractionation

Wednesday February 08:

Carbonate Factory
Great Bahamas Bank Morphology and Sedimentary Facies

Pelagic Carbonates

Wednesday February 15:

Periplatform Sediments
Carbonates - Slopes and Adjacent Basins

Guess Lecture: Dr. Giulio Marrietti (LSU)

Wednesday February 22:

Preparation of Central Texas Field trip
Student Presentations

Central Texas Field Trip (March 2 - 5, 2017)
Upper Cambrian Microbial Carbonates
Lower Cretaceous Rudist Reefs

Wednesday March 08:

Preparation of Guadalupe Mountains Field trip
Student Presentations

Wednesday March 16: Spring Break:

Guadalupe Field Trip (March 14 - 18, 2017)
Permian Mixed Carbonate Siliciclastic Platform

Week March 22: Exam

Week March 29:

Pure Carbonates, Sea Level, Latitudes, and Climate

Mixed Carbonates, Sea Level, Latitudes, and Climate

Wednesday April 05:

The Origin of Modern Atolls

The Origin of Modern Barrier Reefs

Wednesday April 12:

Student Individual Presentations

Thursday April 19:

Student Individual Presentations

ESCI 506 Expectations:

Attend each class, be on time, if you cannot make a class send an e-mail prior to the scheduled class

Final Grade based on the following:

(20 %) One written Exam, closed book

(10 %) Series of Assignments

(15%) Individual Written Report on Field Trips (< 10 pages)

(10%) Paired Presentations, preparation of Central Texas Permian Guadalupe Mountain Field Trips

(15%) Individual Student Presentations on selected topics

(20 %) Final Individual Paper in developing a topic presented during the semester (< 10 pages)

(10 %) Active and Positive Participation during classes and field trips